

performed to assess evolution of HRU and medical costs over time. Similar analysis was conducted for Medicare-eligible patients. **RESULTS:** Of the 3,940 commercially-insured and 1,658 Medicare-eligible individuals with NETs, 63.0% (n=2,484) and 67.0% (n=1,111) were untreated, respectively. Among untreated commercially-insured individuals with NETs, carcinoid syndrome (20.9%), nausea/vomiting (14.2%) and liver metastasis (11.6%) were the most prevalent symptoms/co-morbidities in the 12-month post-index period; 37.7% had hospitalization admissions and 31.4% had emergency department (ED) visits, and the mean annual number of physician office visits was 18.7. The total monthly medical cost increased from \$3,028 in the pre-index period to \$4,159 in the post-index period. Among untreated Medicare-eligible individuals with NETs, carcinoid syndrome (14.3%), nausea/vomiting (12.5%) and liver metastasis (11.9%) were the most prevalent symptoms/co-morbidities in the 12-month post-index period; 42.2% had hospitalization admissions and 35.0% had ED visits, and the mean annual number of physician office visits was 25.5. The total monthly medical cost increased from \$2,787 in the pre-index period to \$3,788 in the post-index period. **CONCLUSIONS:** Economic burden of untreated individuals with NETs is not negligible in the health care system. Future research should assess reasons for non-treatment, the impact of non-treatment on quality of life, and the benefit to cover this population with medical unmet need.

PCN240

TOTAL VACCINE COLD CHAIN VOLUME NEEDED FOR HUMAN PAPILLOMAVIRUS VACCINATION IN BANGLADESH

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OBJECTIVES: Two vaccines protecting against human papillomavirus (HPV) infections are available in Bangladesh for the protection of girls against cervical cancer. These vaccines require cold chain storage and transportation to ensure their maximal efficacy. This storage may represent a large investment depending on the cold chain volume (CCV) needed. The objective of this study was to estimate and compare the total CCV needed for the vaccination of a single cohort of girls in Bangladesh accounting for the difference in packaging for each vaccine. **METHODS:** The total CCV was estimated by multiplying the annual size of the cohort to be vaccinated by the CCV per dose and the number of doses needed per vaccination schedule. Additionally, a buffer factor of 10% as well as a wastage factor (5% for a 1-dose-vial and 10% for a 2-dose-vial) were also accounted for as an assumption. Two vaccines were considered: the AS04-adjuvanted HPV-16/18 vaccine (AS04v) (2-dose-vial) and the HPV-6/11/16/18 vaccine (6/11/16/18V) (1-dose-vial). Dosing scheme (2-dose(2D) for AS04v, 3-dose(3D) for 6/11/16/18V) was according to label in Bangladesh. Alternative 2D for 6/11/16/18V recommended by World Health Organization (WHO) was also used. Their respective CCV per dose were obtained from the WHO Immunization Standards. A cohort size of N=1,591,697 of girls aged 10 eligible for vaccination was calculated from HPVCenter data. **RESULTS:** CCV for AS04v is 4.8cm³ per dose for a 2-dose-vial and for 6/11/16/18V 15 cm³ per dose for a 1-dose-vial. To vaccinate a single cohort of girls the AS04v (2D) would require a total annual CCV capacity of 18.5m³ vs. 82.7m³ for the 6/11/16/18V (3D) or 55.2m³ for 6/11/16/18V (2D). **CONCLUSIONS:** The AS04v was estimated to require between 3.0 and 4.5 less total CCV than the 6/11/16/18V per vaccinated cohort in Bangladesh. This could translate into substantial logistical costs saved in Bangladesh.

PCN241

SAUDI ARABIA: A VERY ATTRACTIVE BIOPHARMACEUTICAL MARKET, ONCE MANUFACTURERS CAN NAVIGATE THE LABYRINTH

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OBJECTIVES: Saudi Arabia is the most important pharmaceutical market in the Middle East with a quickly growing population, a GDP in the top 30 globally and a high willingness to pay for pharmaceuticals. This represents a very attractive market for biopharmaceutical companies and their respective therapies as the market is expected to reach nearly \$5B USD by 2016. This research aimed to understand the evolving and complex reimbursement landscape in the country and develop strategies to capitalize on opportunities in the region, specifically focusing on high cost oncology therapeutics. **METHODS:** The research was conducted through in-depth interviews with payers and clinicians across each government sector/ministry in Riyadh, Jeddah and Dammam. **RESULTS:** The health care system in Saudi Arabia is decentralised and reimbursement decisions are made by individual government sectors (ministries). Recent reforms in the health care system have attempted to create a movement towards being more cost conscious. The majority of pharmacy departments at specialist hospitals in the leading 3 cities conduct pharmacoeconomic reviews, with varying rigor, although the impact is much less than that of the clinical review. Currently, the Saudi FDA is the regulatory authority in the country for pricing and reimbursement; however there is an increasing trend where pharmaceutical companies are taking alternate avenues to get high cost products reimbursed in the country. We identified and qualified opportunities and threats for high cost oncology products in the region. **CONCLUSIONS:** Despite the complexity of the market, investing in this large and developing marketplace will surely raise the profile of the country and provide great opportunity for the manufacturer. Given the large population and high willingness to pay, Saudi Arabia represents a very attractive market that should not be overlooked by pharmaceutical companies. Navigating the labyrinth strategically will ultimately help manufacturers achieve formidable success in the market.

PCN242

EVIDENCE FOR REGIONAL VARIATION IN THE APPRAISAL OF INDIVIDUAL CANCER DRUGS FUND REQUESTS

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OBJECTIVES: The Cancer Drugs Fund (CDF) was set up in 2011 in England to enable cancer patients to gain access to therapies that are not routinely available on the NHS. A national CDF cohort policy lists drugs to be funded for patients who meet

the relevant clinical criteria. Individual Cancer Drug Fund requests (ICDFRs) can also be made for patients outside of routine cohort CDF criteria for rare diseases or, in cases where a decision has been made not to fund a cohort, for patients for whom clinical exceptionality from this cohort can be demonstrated. ICDFRs are screened to ensure that the request is appropriate and are then appraised by one of four regional CDF panels. This research aimed to evaluate whether access to oncologists through ICDFRs varies by region. **METHODS:** ICDFR outcomes data (April 2013–March 2014) was extracted from the NHS website and stratified by NHS estimates of the resident population by region. All statistical analyses were performed using a Chi-squared test. **RESULTS:** 1029 ICDFR applications were received for consideration (London, 301; East and Midlands, 231; North England, 181; South England, 316), 46% of which were deemed ineligible by screening, significantly varying by region (p<0.0001, range 22% (North England) to 67% (East and Midlands)). 50% of screened ICDFRs were approved, which varied substantially by region (p<0.0001, range 37% (East and Midlands) to 72% (South England)). Overall, around 5.5 ICDFRs were accepted per million patients across England, however, between regions this ratio varied over six-fold (range 1.9 (East and Midlands) to 12.0 (South England)). **CONCLUSIONS:** The notable variations in ICDFR screening, acceptance, and population level approval rates, which are larger than what we may expect based on regional variations in case mix, suggest that regional areas must further collaborate to ensure that patients have equitable access to the Cancer Drugs Fund.

PCN243

THE UK CANCER DRUG FUND SCORING SYSTEM AND THE IMPACT OF THE INCREMENTAL COST EFFECTIVENESS RATIO ON FUNDING DECISIONS

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OBJECTIVES: Oncology drugs in England rejected or not yet assessed by the National Institute for Health and Care Excellence (NICE) can seek funding through the Cancer Drug Fund (CDF). Each drug is given a score via the national CDF Prioritisation Tool which is a clinically-led process where cost-effectiveness is considered only as a tie-breaker. The objective of this research was to determine which score secures CDF approval and how the decision is related to the Incremental Cost Effectiveness Ratio (ICER). **METHODS:** CDF drug reports (including the scores) published from April 2013 until March 2014 were analysed and mapped to the national May CDF list. Each score comprises of a number indicating the clinical profile of the drug and the letter (A–D, U) representing the strength of evidence. The ICER per indication was sourced from NICE assessments and the relationship to the CDF list was analysed. **RESULTS:** A review of 56 CDF reports showed that generally, drugs with scores below 1B (positive clinical profile, one Phase III published study) were not granted CDF funding. Positive decisions were made for 19 indications with scores ranging from 1B to 8B. The most common reasons for not approving drugs with a score of ≥1B were the trial not representing the NHS England population; lack of clinical effectiveness or questionable wider clinical support. The ICERs does not appear to have an influence on the CDF decision as ICERs for both CDF and non-CDF drugs ranged from £30,000 to £150,000. **CONCLUSIONS:** The result of this research confirms that the clinical profile and the level of evidence are the most important factors for the CDF inclusion while cost-effectiveness is not a standard part of the decision-making process. The findings can also support manufacturers in estimating the likely outcome of the CDF application based on the pre-calculated score.

PCN244

PHARMACEUTICAL MARKET ACCESS IN RUSSIA: A REGIONAL MAZE?

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OBJECTIVES: The Russian pharmaceutical market is one of the fastest growing in the world. Its value is predicted to rise from \$24 billion in 2013 to \$75 billion by 2020⁽¹⁾. For industry the market opportunity is compelling, however market access across this vast region is complex and challenging, specifically for high-cost products. This research was conducted to have a closer look at the Russian pharmaceutical pricing and reimbursement model, and further explore access barriers. **METHODS:** The research was conducted through in-depth secondary research and interviews with stakeholders in Russia including members of the Russian ministry of health, Federal health insurance fund, and regional/municipal health authorities. **RESULTS:** At the federal level, the Ministry of Health and Social Development (MoHSD) develops strategy, policy and budgets in health care. The MoHSD has developed an Essential Drugs List (EDL) to ensure that drugs are made available at a harmonized price across Russia. However being listed on the EDL does not ensure reimbursement. In Russia, regional health authorities function as independent units. Drug provision and systems of reimbursement are usually developed at a regional level. However, each of the 82 Russian regions also has fundamentally different demographic and economic conditions, creating unique requirements and subsequent disparity in health care delivery and funding across the regions. It is critical for manufacturers to get their product listed in individual regional formularies, which will be used as the foundation for the reimbursement systems as they are rolled out in the future. **CONCLUSIONS:** The Russian market is vast, fast growing and clearly offers massive opportunities for pharmaceutical companies. However, this is a complex market, with a considerable regional variation in decision making. Industry will have to invest in gaining regional insight to determine priority regions and justify market access plans according to the dynamics of a specific region.

PCN245

HEALTH CARE RESOURCE UTILIZATION (HCRU) IN HOSPITALIZED FEBRILE NEUTROPENIA (FN) PATIENTS TREATED WITH CHEMOTHERAPY FOR SOLID TUMORS (ST) AND HEMATOLOGICAL MALIGNANCIES (HM) IN BULGARIA (BG), CZECH REPUBLIC (CZ) AND SLOVAKIA (SK) AS OBSERVED IN CLINICAL PRACTICE

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